TKACH, F.F. (Novokuznetsk Kemerovskoy obl.); MAMONTOV, V.F. (Novokuznetsk Kemerovskoy obl.)

Apparatus for welding flanges. Stroi. truboprov. 8 no.6:30 Je '63. (MIRA 16:7)

1. Starshiy inzh. stroitel'nogo upravleniya Santekhstroy tresta Vostokgidrospetsstroy (for Tkach). 2. Glavnyy svarshchik stroitel'nogo upravleniya Santekhstroy tresta Vostokgidrospetsstroy (for Mamontov).

(Pipe flanges--Welding)

TKACH, F. S. Cand Med Sci -- (diss) "Data ~~on~~ to the problem of peridural
[redacted]
anesthesia." Khar'kov, 1957. 114 pp (Min of Health UkSSR. Khar'kov State Med Inst), 200 copies (KL, 3-58, 100)

TKACH, F.S., kand.med.nauk

Causes for failures in peridural anesthesia. Vest.khir. 89 no.8: 53-56 Ag '62. (MIRA 15:10)

1. Iz kliniki obshchey khirurgii (zav. - porf. S.L.Minkin [deceased] Khar'kovskogo meditsinskogo instituta.
(SPINAL ANESTHESIA)

TKACH, F. S., kand. med. nauk

Fatal outcomes in peridural anesthesia. Khirurgiia no.4:74-78 '62. (MIRA 15:6)

1. Iz kafedry obshchey khirurgii (zav. - prof. S. L. Minkin [deceased]) Khar'kovskogo meditsinskogo instituta.

(SPINAL ANESTHESIA)

[illegible], V.Ye. [illegible]; [illegible], V.F. [Mykhailov, [illegible]];
[illegible], V.I., kand. tekhn. nauk; [illegible], G.A. [Tkach, [illegible]],
kand. tekhn. nauk

Control of carbonization and settling columns in the soda
industry. Khim. prom. [Ukr.] no.4:[illegible] O-D '63.
(MIRA 17:6)

S/122/61/000/002/002/011
A161/A126

AUTHORS: Sharonov, G. P., Candidate of Technical Sciences, Docent and Tkach, G. I.

TITLE: Effect of colloidal sulfur addition to oil on plastic flow of steel test specimen surfaces in beginning wear.

PERIODICAL: Vestnik mashinostroyeniya, no. 2, 1961, 13 - 14

TEXT: Experiments have been carried out with steel specimens in the form of small rollers with edges chamfered at a 3° angle, in an МИ(MI) friction test machine. The test conditions were chosen to imitate the service conditions of machine parts such as distribution shaft cam, gear teeth, etc.; the lubricant was standard "nigrol". The additions of colloidal sulfur were varied to change the content from 0.5 to 10 %. The wear surfaces were studied under microscope and on photographs of light interference lines. The data showed an increase of the surface layer deformation with the increasing sulfur content in oil in the beginning of wear only. A maximum of plastic flow and deformation depth was stated at 2 % S in oil, which confirmed former investigation data on the surface activity of

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Effect of colloidal sulfur ....

S/122/61/000/002/002/011
A161/A126

sulfur and its penetration into beginning microscopic cracks and grain boundaries. Content lower than 2 % S resulted in reduced surface flow of specimens; a higher content as well, due to reduced surface activity and to the screening effect of the forming sulfide and oxide films respectively. Reference is made to a former investigation where it had been stated that the sulfide film forming during running-in time is 30 -40 μ deep on "45" steel, 150 μ on grey cast iron, and 100 μ on babbit. Running-in is fastest at a certain optimum sulfur content in oil. There are 4 figures and 4 Soviet-bloc references.

POTRASHKOV, V.I., kand. tekhn. nauk; TKACH, G.A. [Tkach, H.A.]

Dynamic characteristics of a distillation unit for the production of soda studied as an object for the regulation of the thermal and concentration conditions. Khim. prom. [Ukr.] no.3: 51-60 Jl-S '63. (MIRA 17:8)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii.

TKACH, G.I.

Plastic flow and distortions of the crystalline structure of steel following initial wear. Trudy LIEI no.29:14-18 [i.e. 39] '62. (MIRA 16:6)

(Dislocations in metals) (X-ray diffraction examination) (Steel--Testing)

TKACH, G.I.; TERMINASOV, Yu.S.

X-ray diffraction study of distortions of the crystalline structure of steel treated with sulphurated oil. Trudy LIEI no.29:28-32 [i.e. 39] '62. (MIRA 16:6)
(X-ray diffraction examination) (Dislocations in crystals)
(Steel—Testing)

TKACH, Ivan Kondrat'yevich,; POZHIDAYEVA, M.,red.; YUSFINA, N., tekhn. red.

[Soviet Bashkiria] Sovetskaia Bashkiriia. Moskva, Izd-vo "Sovetskaia Rossiia," 1958. 53 p. (MIRA 11:12)

1. Direktor pavil'ona Bashkirskoy ASSR (for Tkach).
(Bashkiria--Agriculture)

TKACH, IVAN KONDRAT-"YEVICH
SOVETSKAYA BASHKIRIYA (SOVIET
BASHKIR) MOSKVA, "SOVETSKAYA
ROSSIYA", 1958

530 P. (OPYT UCHASTNIKOV VSKHV)

CHERNOV, N.N., kand. tekhn. nauk; TKACH, I.T., inzh.; GOTLIB, A.D., doktor tekhn. nauk, rukovoditel' raboty; Prinimala uchastiye: PECHENNIKOVA, I.S., inzh.

Comparing the performance of blast furnaces in plants of the Dnieper Economic Region. Met. i gornorud. prom. no.4:6-10 Jl-Ag '63. (MIRA 16:11)

1. Dneprodzerzhinskiy metallurgicheskiy zavod-vtuz (for Chernov). 2. Pridneprovskiy sovet narodnogo khozyaystva (for Tkach).

KEKELIDZE, M.A.; ARSENISHVILI, A.Yu.; PEROVA, V.V.; KULIKOV, A.P.; TKACH, I.T.

Using Chiatura carbonate manganese ores for the production of pig iron used in steel manufacture. Trudy Inst.met. AN Gruz. SSR 9:49-57 '58. (MIRA 12:8)
(Chiatura--Manganese ores) (Cast iron--Metallurgy)

CHERNOV, N.N.; TKACH, I.T.

Analyzing the performance of blast furnace plants in the Dnieper Economic Region operating with a various degree of forced working. Metallurg 8 no.9:4-9 S '63. (MIRA 16:10)

1. Dneprodzerzhinskiy zavod-vtuz i Pridneprovskiy sovet narodnogo khozyaystva.

(Dnieper Economic Region--Blast furnaces)

TKACH, L.V.

Carriage-mounted crane for assembling and disassembling. Mekh. sil'. hosp. 9 no.1:9 Ja '58. (MIRA 11:2)

1. Golovniy inzhener Veneslavivs'koi mashinno-traktorskoi stantsii, Poltavs'koi oblasti.

(Cranes, derricks, etc.)

SEVAST'YANOVA, V.V.; TKACH, L.A.

Efficiency of the use of urea. Khim.prom. [Ukr.] no.2:34-35 Ap-Je '65. (MIRA 18:6)

LEPEKHIN, F.G.; MAKAROV, M.M.; TKACH, L.N.

Applicability of the evaporation theory in describing the emission of multiply charged particles from heavy nuclei. IAd. fiz. 1 no.6:987-993 Je '65. (MIRA 18:6)

1. Fiziko-tekhnicheskiy institut imeni Ioffe AN SSSR.

TKACH, M.

Friendly contacts will be developed. NTO 5 no.3:56-58 Mr '63.
(MIRA 16:4)

1. Zaveduyushchiy mezhdunarodnym otdelom Vsesoyuznogo soveta nauchno-tekhnicheskogo obshchestva.
(Russia—Relations(General) with foreign countries)

AFANAS'YEV, Ya. (g.L'vov); TKACH, M., instruktor; KACHAN, L.;
SHMYGANOVSKIY, V.; VOLKOV, A.; FRID, L. (g.Minsk); PODLUZHNYY, A.
(g.Kiyev); YEVSTYUGIN, N.

Letters and correspondence. Sov. profsoiuzy 17 no.24:42-43 D '61.
(MIRA 14:12)

1. Krivorozhskiy gorodskoy komitet Kommunisticheskoy partii Ukrainy (for Tkach). 2. Nestatnyy korrespondent zhurnala "Sovetskiye profsoyuzy" g. Vitebsk (for Kachan). 3. Predsedatel' rabochego komiteta sovkhoza "Cherevkovskiy" Krasnoborskogo rayona, Arkhangel'skoy obl. (for Volkov). 4. Neshtatnyy korrespondent zhurnala "Sovetskiye profsoyuzy", Sverdlovskaya obl. (for Yevstyugin).

(Community centers)
(Evening and continuation schools)

TKACH, M.S.

Application of a uniform technology. Zhel.dor. transp. 45 no.10: 84 O '63. (MIRA 16:11)

1. Vneshtatnyy instruktor Krivorozhnogo gorodskogo komiteta Kommunisticheskoy partii Ukrainy.

GAL'PERIN, L.N.; AFONIN, O.F.; TKACH, I.I.

Amplitude analyzer for three-dimensional recording of nuclear spectra with the use of a digital magnetic recorder. Prib. i tekh. eksp. 9 no.3:67-77 My-Je '64 (MIRA 18:1)

1. Fiziko-tekhnicheskiy institut AN SSSR.

TKACH, M.S. (g.Krivoy Rog)

Cooperative use of equipment. Zhel.-dor.transp. 43 no.9:70-71 S '61. (MIRA 14:8)

1. Instruktor promyshlenno-transportnogo otdela Krivorozhskogo gorkoma Kommunisticheskoy partii Ukrainy.
(Railroads--Joint use of facilities)

VOYEVODIN, A.V., kand. sel'skokhoz. nauk; IVANOVA, Ye.I., aspirantka; BAGIROV, G.D.; IGAMBERDYYEV, Kh., aspirant; TKACH, M.T., agronom; IBAGIMOV, G. R., doktor sel'skokhoz. nauk; ASKEROVA, T.Z.; mladshiy nauchnyy sotrudnik; KOSHKAROVA, D.D., mladshiy nauchnyy sotrudnik; KASUMOV, V.G., mladshiy nauchnyy sotrudnik; RAGIMOV, I.R., mladshiy nauchnyy sotrudnik;

From practices in using poisonous chemicals. Zashch. rast. ot. vred. i bol. 9 no.5:22-24 '64. (MIRA 17:6)

1. Vsesoyuznyy institut zashchity rasteniy (for Voyevodin). 2. Sibirskaya opytnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta maslichnykh i efiromaslichnykh kul'tur, Isil'kul', Omskoy oblasti (for Ivanova(. 3. Azerbaydzhanskiy institut zashchity rasteniy, Kirovabad (for Bagirov). 4. Surkhandar'inskaya oblastnaya sel'skokhozyaystvennaya opytnaya stantsiya (for Igamberdyyev). 5. Kuybyshevskiy punkt ucheta i prognozov (for Tkach). 6. Azerbaydzhanskiy institut zashchity rasteniy (for Ibragimov, Askerova, Koshkarova, Kasumov, Ragimov). 7. Nachal'nik otryada po bor'be s vreditelyami i boleznyami rasteniy Chistopol'skogo rayona Tatarskoy ASSR (for Mironov).

ARTYUKHOV, M.; TKACH, N.

Bank and the struggle with additions. Fin. SSSR 22 no.7:
81-83 Jl '61. (MIRA 14:7)

1. Starshiy kontroler-revizor Krasnodarskoy krayevoy kontory Stroybanka (for Artyukhov). 2. Starshiy ekonomist Krasnodarskoy krayevoy kontory Stroybanka (for Tkach).
(Banks and banking)
(Construction industry—Auditing and inspection)

KARNAUKH, P.D.; TKACH, N.M.

Blood transfusion in thyrotoxicosis. Zdrav.Belor. 5 no.1:53-54 Ja '60. (MIRA 13:5)

1. Iz khirurgicheskogo otdeleniya Molodernenskoy oblastnoy bol'nitsy (glavnyy vrach A.S. Romashko).
(BLOOD--TRANSFUSION) (THYROID GLAND--DISEASES)

25561
S/185/61/006/001/004/011
D210/D305

18 3100

G

AUTHOR: Hlinchuk, K.D. and Tkach, N.M.

TITLE: Extraction of Ni, Ag, Fe impurities from germanium

PERIODICAL: Ukrayins'kyy fizichnyy zhurnal, v. 6, no. 1, 1961, 49-55

TEXT: This paper describes research on the extraction of nickel, silver and iron impurities from germanium by coating its surface with Au, Sb, Sn and Ag. During a sequence of experiments it was proved that copper could be extracted from germanium by high temperature treatment in contact with the following metals: Sn, Pb, Au, Sb, As, Fe, Ag, Zn, In, Ga, Ta, Ni, Rh and also in contact with some cyanide solutions. The extracting ability of various coatings can be explained by the value of the coefficient of absorption. This coefficient for copper alloyed with germanium is considerably smaller than 1 ($10^{-5} \div 10^{-7}$). Effectiveness of the copper extraction is also increased by the high velocity of its diffusion, thanks to it, copper in a comparatively short time passes to the surface of germ-

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D210/D305

Extraction of Ni, Ag, Fe impurities

anium. It can be concluded that the effect of extraction E can be sufficiently big for impurities which have similar properties to copper i.e. a comparatively low solubility in germanium (in comparison with the solubility in extracting metals) and also a high velocity of diffusion. With regard to the above, there is a possibility of extracting from germanium the following impurities: Ni, Ag, and Fe which all have a low solubility in germanium and a high velocity of diffusion. The following metals were chosen as coatings: Au, Sn and Sb. These metals have a low velocity of diffusion in comparison with Ni, Ag and Fe. This prevents the possibility of their diffusion into germanium during the process of extraction. The samples for extracting impurities have been prepared from ordinary germanium. The impurities have been introduced into germanium by the melting process (Fe); and by diffusion at 800°C (Ni) and at 850°C (Ag) in Argon. The extractions were carried out at the same temperatures. Concentrations of Ni, Ag and Fe as well as the changes in their amounts during the extraction process were established by the temperature dependence of Hall's coefficient and by the temperature dependence of the half life. Germanium was coated with different

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D210/D305

Extraction of Ni, Ag, Fe impurities

metals, of a thickness of a few microns in vacuum (Au, Sb), electrically (Sn, Ni) or by the residue from 0.5% aqueous silver nitrate (Ag). The results are shown graphically and in tabulated form. It can be seen that the metallic coatings applied are effective in extracting Fe, Ni and Ag impurities from germanium as shown by the practically complete re-establishment of 'S' by the considerable increase of 'τ' and the diminishing of concentration of atoms Ag^{110} and Fe^{59}, set by the radioactive analysis. The results also indicate that an Ag coating extracts Ni impurities from germanium. In that case the re-establishment of 'S' is considerably smaller than when Au, Sn and Sb coatings are used, which can be explained by some penetration of silver atoms into germanium during the process of extraction. They also show that heat treatment in the presence of Au coating causes the extraction of Ni and Ag atoms from germanium. Finally, it can be seen that Au, Sb, Sn, Ag and Ni effectively extract copper from germanium. In effect the application of metallic coatings (Au, Sb, Sn) causes the complete transfer of impurities of Ni, Ag, and Fe into the above mentioned metals. The observed increase of concentration of light ionizable atoms of Ag^{110} and Fe^{59} ($\sim 1.10^{13}$ - 2.10^{13}

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D210/D305

Extraction of Ni, Ag, Fe impurities...

cm^{-3}) after the process of extraction, and also the not fully restored value of 'τ' are probably caused by structural faults in the crystal lattice which occur during the sudden tempering of germanium. There are 1 table, 3 figures and 26 references: 14 Soviet-bloc and 12 non-Soviet-bloc. The references to the English-language publications read as follows: W. Tyler, J. Phys. Chem. Solids, 8, 59, 1959; R. Newman, W. Tyler, Solid State Phys. 8, 49, 1959; H. Reiss, J. Appl. Phys. 30, 1141, 1959.

ASSOCIATION: Institut fizyky AN URSR (Institute of Physics, AS UkrSSR)

SUBMITTED: March 31, 1960

Card 4/4

GLINCHUK, K.D. [Hlynchuk, K.D.]; TKACH, N.M.

Extraction of Ni, Ag, and Fe impurities from germanium.
Ukr. fiz. zhur. 6 no.1:49-55 Ja-F '61. (MIRA 14:6)

1. Institut fiziki AN USSR.
(Germanium—Metallurgy)

VORONOVA, N.A.; GINZBURG, Yu.N.; TOVAROV, V.V.; TKACH, N.T.; Prinimali uchastiye: OSKALENKO, G.N.; KOROTAYEVA, V.P.; POD'YACHEVA, I.B.; NIKANOROVA, N.A.

The problem of raising the quality of cylindrical grinding bodies. Trudy Giprotsement no.24:119-144 '62. (MIRA 16:4)
(Milling machinery)

VORONOVA, N. A.; FEDOROVA, S. A.; TKACH, N. T.

Cast iron with bainite structure for making cylindrical pebbles.
Trudy Giprotsement no. 26:54-62 '63. (MIRA 17:5)

BABANOV, G.K. [Babanov, H.K.]; OKHOTOV, A.A. [Okhotov, O.O.]; PLISKO,
A.G. [Plysko, A.H.]; TKACH, N.V. [Tkach, M.V.]

Unit for air heating. Khar. prom. no.3:49-50 Jl-S '65. (MIRA 18:9)

[illegible]

ACCESSION NR: AR4[illegible] S/[illegible] 64/000/009/D050/D050

SOURCE: Ref. zh. Khimiya, Abs. [illegible]

AUTHOR: Tkach, O.

TITLE: An automatic recorder for measuring radiation ad

CITED SOURCE: Tr. Sibirsk. tekhnol. in-ta, sb. 36, 1963, 104-105

TOPIC TAGS: radiometer, automatic recorder, automatic radiometer

10

TRANSLATION: The instrument is constructed in the form of an attachment to the B-2 radiometer (VSP and BGS-2 units with an STS-No. counting tube) and consists of a frame with [illegible]. The [illegible] is [illegible]ated with photographic [illegible] serves as the source of illumination. The [illegible] operation of the automatic [illegible] are described. This attachment significantly broadens the range of possible application of [illegible] connected with changes of radiation. I. Yefimova

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TKACH, P.N.

Nitrous oxide with oxygen inhalation anesthesia. Khirurgiia, Moskva no. 5:17-22 May 1952. (CLML 22:3)

1. Of the Military Medical Academy imeni S. M. Kirov.

TKACH, P.N.; KACHAYEV, V.L.

Fat embolism in the vessels of the brain in a leg gracture.
Vop. psikh. i nevr. no.9:128-131 '62. (MIRA 17:1)

1. Travmatologicheskoye otdeleniye Ob"yedinennoy bol'nitsy Oktyabr'skoy zheleznoy dorogi (nachal'nik bol'nitsy - M.A. Ivanova) i Leningradskiy nauchno-issledovatel'skiy neyrokhirurgicheskiy institut imeni A.L. Polenova (dir. instituta - prof. V.M. Ugryumov).

TKACH, P.N., podpolkovnik meditsinskoy sluzhby; KISILEVSKIY, V.L., mayor meditsinskoy sluzhby

Late results of a subcutaneous shrapnel wound of the spinal pia mater. Voen.-med. zhur. no.9:72 S '55. (MLRA 9:9)
(SPINAL CORD--WOUNDS AND INJURIES)

TKACH, P.S. (Odessa B-17, Tovarnyy per., d.2. kv.3)

Hemodynamic and oxyhemometric changes in surgical interventions under spinal anesthesia. Ortop. travm. i protez. 24 no.6:30-36 Je'63 (MIRA 16:12)

1. Iz Odesskogo instituta tuberkuleza (dir. - starshiy nauchnyy sotrudnik M.A. Brusnikin) i kafedry ortopedii i travmatologii (zav. 0 prof. I.G.Gertsen) Odesskogo meditsinskogo instituta imeni N.I.Pirogova (rektor - zasluzhennyy deyatel' nauki prof. I.Ya.Deyneka).

TKACH, P.S. (Odessa B-17, Tovarnyy pereulok, d. 2, kv. 3)

Results of intra-articular necretomy, synovectomy, and arthrolysis in tubercular gonitis. Ortop., travm. i protez. 27 no. 1:72-75 Ja '66. (MIRA 19:1)

1. Iz kostnokhirurgicheskoy kliniki Odesskogo instituta tuberkuleza (direktor - starshiy nauchnyy sotrudnik M.A. Brusnikin) i kafedry ortopedii i travmatologii (zav. - prof. I.G. Gertsen) Odesskogo meditsinskogo instituta imeni N.I. Pirogova. Submitted March 16, 1965.

TSITKO, T.M.; TKACH, F.S.

Significance of tuberculin diagnosis and examination of proteins fractions in the blood serum in surgical treatment of osteoarticular tuberculosis. Probl. tub. 42 no.3:58-61 '64.

(MIRA 18:1)

1. Kostno-khirurgicheskaya klinika (zav. -- prof. G.F.Skosogorenko [deceased]) i biokhimicheskaya laboratoriya (zav. T.M.TSitko) Odesskogo instituta tuberkuleza (direktor M.A.Brusnikin).

TKACH, P.S.

Antitoxic function of the liver in thrombophlebitis. Vrach. delo no.2:201-203 F '59. (MIRA 12:6)

1. Kafedra fakul'tetskoy khirurgii kliniki (zav. - prof.I.N. Ishchenko) Kiyevskogo meditsinskogo instituta.
(PHLEBITIS) (LIVER)

TKACH, P.S. (Kiyov, ul. Mechnikova, d.5, kv. 17)

Oscillography in thrombophlebitis of the extremities. Nov. khir. arkh. no.5:62-67 S-O '60. (MIRA 14:12)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. I.N.Ishchenko).
(OSCILLOGRAPHY) (PHLEBITIS)
(THROMBOSIS)

OGANESOV, I.S., nauchnyy sotrudnik; RABINOVICH, A.Ye., nauchnyy sotrudnik;
TKACH, S.D., nauchnyy sotrudnik

Problems of further specialization in construction for the transportation industry. Transp. stroi. 12 no.6:36-39 Je '62.
(MIRA 15:6)

1. Otdeleniye ekonomiki Vsesoyuznogo nauchno-issledovatel'skogo instituta transportnogo stroitel'stva.
(Construction industry)
(Transportation)

TKACH, S.K.

Secondary blowing into the reaction zone of rotary kilns. Biul. tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 18 no.1:62-63 Ja '65. (MIRA 18:4)

TKACH, V.

Mechanization of the conveying and distribution of fodder in horned cattle farms. Mashinostroenie no.6:75-79 N-D '62.
(MIRA 16:2)

(Cattle—Feeding and feeding stuffs)

TKACH, V., polkovnik intendantskoy sluzhby

Constantly strengthen financial management on ships. Tyl i snab. Sov. Voor. Sil 21 no.9:62-65 S '61. (MIRA 14:12)
(Russia--Navy--Finance)

TKACH, V.

Miners on the collective farms. Sov.shakht. 10 no.5:4-5 My '61. (MIRA 14:9)

1. Predsedatel' komiteta profsoyuza shakhty "Kommunist-Novaya," Donbass.
(Donets Basin--Coal miners) (Collective farms)

TKACH, V.

By the united collective. Sov. profsoiuzy 16 no.21:21-25 N '60.
(MIRA 13:10)

1. Predsedatel' komiteta profsoyuza shakhty "Kommunist-Novaya", Stalinskaya oblast'.
(Stalino Province--Coal mines and mining)
(Socialist competition)

L 15165-63 EWP(j)/EPF(c)/EWP(k)/EWT(l)/EWT(m)/BDS AFFTC/ASD Pc-4/
Pr-4/Pf-4 RM/WW

ACCESSION NR: AR3003348 S/0058/63/000/005/H067/H067

SOURCE: RZh. Fizika, Abs. 5Zh400 73

AUTHOR: Petrenko, Yu. A.; Tkach, V.

TITLE: Concerning the determination of the molecular weights of some pure liquids by the ultrasonic interferometer method

CITED SOURCE: Uch. zap. Khar'kovsk. un-t, v. 127, 1962, Tr. Radiofiz. fak., v. 6, 105-108

TOPIC TAGS: molecular weight, ultrasound, 1-olefin, acetylene derivative, saturated hydrocarbon, iodide alkyl, fatty acid, sound velocity

TRANSLATION: An expression which does not contain the refractive index, but only the velocity of sound and the density, is derived for the molecular weight. To check this expression, the velocity of ultrasound is measured by the interferometer method in 1-olefins, derivatives of acetylene, saturated hydrocarbons, iodide alkyls, and fatty acids. The values of the molecular weight calculated from these velocities were in satisfactory agreement with the theoretical values. The results are presented in the form of tables.

Card 1/1

TKACH, V.D., inzh.; GURBAN, V.I., inzh.

Improving the design of hydraulic distributors. Stroi. i dor. mashinostr. no.4:8-9 Ap '58. (MIRA 11:4)

(Oil hydraulic machinery)
(Excavating machinery)

TKACH, V.D., inzh.

The E-221 one-bucket hydraulic excavator. Stroi. i dor. mashinostr 3 no.5:9-12 My '58. (MIRA 11:6)
(Excavating machinery)

SOV/100-58-8-12/13

AUTHOR: Tkach, V. D. and Yeremenko, K. P. Engineers

TITLE: New Machines of the Kiyev Factory "Krasnyy Ekskavator". (Novyye mashiny Kiyevskogo zavoda "Krasnyy Ekskavator".)

PERIODICAL: Mekhanizatsiya Stroitel'stva, 1958, Nr.8. pp. 27 - 30. (USSR).

ABSTRACT: In 1956 the above factory commenced mass production of small hydraulic excavators with bucket capacity of 0.15 m^3 (E-153). The advantages of this excavator are the small size, manoeuvrability and universal application. Table 1 gives figures for various attachments to this crane. Various shortcomings of this excavator were eliminated in collaboration with "Pnevmostroymashina", "Metallorukav", "Kauchuk", Glavekskavator of the Ministry for Building and Road Building Machinery (Ministerstvo stroitel'nogo i dorozhnogo mashinostroyeniya), Glavkhimprom of Ministry for Chemical Industry (Ministerstva khimicheskoy promyshlennosti) and VNIIStroydormash. The excavator E-153 was adapted for use on the tractor "Belarus'" MTZ-5K. The hydraulic cylinders and various other parts were fully standardised to suit excavators E-153, E-221 and ETN-122. This factory also designed and produced a prototype of trench excavator ET-142 which the Tallinn factory put

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SOV/100-58-3-12/13

New Machines of the Kyev Factory "Krasnyy Ekskavator".

into production. After experience gained with excavator E-153, improved excavator E-221 on the base of tractor "Belarus'" was produced. Table 2 gives technical data on this excavator. The following leading operatives and engineers of the above factory were concerned with improvements on the construction of excavators: A. N. Luk'yanenko. A. P. Terekhovskiy, Ya. I. Fefer, V. Yu. Gurban, Yu. I. Mikhaylenko and G. A. Popov. A new design of hydraulic excavator E-156 is being prepared for 1958 based on new pneumatic tractor D-35; Table 3 gives its technical data. The following experimental group were connected with constructions of new machines: T. G. Khomenko, V. P. Rykhlevskiy, G. A. Popov, A. T. Kulyshov and I. P. Bykovtsev. This year the "Krasnyy Ekskavator" will produce over 2,000 excavators E-153, 20 excavators E-221 and 10 trench excavators ETN-122, as well as various new attachments for excavators E-153

Card 2/3

SOV/100-58-8-12/13

New Machines of the Kiyev Factory "Krasnyy Ekskavator".

and E-221 in addition to preparation of working drawings for hydraulic excavator E-156. There are 3 Tables, 2 diagrams and 9 illustrations.

1. Construction--Equipment 2. Industrial equipment--Production

Card 3/3

GURBAN, V.Yu., inzh.; TKACH, V.D., inzh.; URUSOV, K.V., inzh.

Hinged joints of metal piping for hydraulic drives of excavators. Stroi.i dor.mashinostr. 4 no.8:21-23 Ag '59.
(MIRA 12:12)

(Excavating machinery--Hydraulic driving)

GURBAN, Vasiliy Yustinovich; TKACH, Vasiliy Denisovich; URUSOV, Konstantin Vasil'yevich; KHAYMOVICH, Ye.M., doktor tekhn.nauk, red.; FURER, P.Ya., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[Movable joints of pipes in hydraulic systems] Podvizhnye soedineniia truboprovodov gidravlicheskikh sistem. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 69 p. (MIRA 13:9)
(Pipe joints)

TKACH, V.D., inzh.

Quickly dismountable light bulldozers. Stroi. i dor. mash. 7 no.9:10-12 S '62. (MIRA 15:10)
(Bulldozers)

TKACH, Vasiliy Denisovich; ORENBOYM, Boris Danilovich; GURBAN, Vasiliy Yustinovich; YEREMENKO, Konstantin Prokof'yevich; POPOV, Ya.Ya., inzh.,retsenzent; PELEVIN, N.N., inzh.,red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[E-153, E-153A, and E-153ASh hydraulic excavators; a manual on their maintenance and operation] Gidravlicheskie ekskavatory E-153, E-153A, E-153ASh; rukovodstvo po ukhodu i ekspluatatsii. Moskva, Mashgiz, 1963. 160 p. (MIRA 16:6)

(Excavating machinery)

TKACH, V.F.

Towards new accomplishments in the petroleum and gas industries of the Ukranian S.S.R. Neft. i gaz. prom. no.1:3-5 Ja-Mr '64.
(MIRA 18:2)

1. Zaveduyushchiy sektorom otdela tyazheloy promyshlennosti TSentral'nogo komiteta Kommunisticheskoy partii Ukrainy.

KAGAN, Boris Moiseyevich; TER-MIKAELYAN, Teodor Mikhaylovich;
ROZENKNOP, V.D.; TKACH, V.F.

[Solution of engineering problems using digital computers] Reshenie inzhenernykh zadach na tsifrovykh vychislitel'nykh mashinakh. Izd.2., sovershenno perer. Moskva, Izd-vo "Energiia," 1964. 591 p. (MIRA 17:5)

L 58732-65
S/0271/64/000/010/A057/A057
ACCESSION NR: AR5002392
621.398.91
SOURCE: Ref. zh. Avtomat., telemekh. i vychisl. tekhn. Sv. t., Abs. 10A350
3
6

AUTHOR: Antoshin, V. G.; Karlov, A. M.; Tkach, V. I.

TITLE: Frequency-digital system of radiosignaling for open-pit mining

CITED SOURCE: Sb. nauchn. tr. Krivorozhsk. gornorudn. in-t, vyp. 24, 1964, 109-111

TOPIC TAGS: radiosignaling, telesignaling, mining signaling, dispatcher's control

TRANSLATION: A contactless system is suggested for signaling the condition of work machinery at the open pit to the dispatcher's desk. The binary code is recommended in view of the subsequent information processing by a digital control machine. A plant signal (from an excavator, a drilling machine, etc.) reports the plant address and condition at a given moment. The radio channel permits transmission of "1" and "0" signals and also marking of the beginning and the end of a cycle by different frequencies. Logical schemes of the information units located at the plant and at the dispatcher's station and their functioning is briefly described. The principal advantage of this contactless telesignaling system lies in the fact that the system uses standard, tested-by-practical-use elementary

Card 1/2

L 58732-65

ACCESSION NR: AR5002392

computer units, such as triggers, AND, OR, NOT gates, delay lines, etc. This fact permits easy alterations in the signaling system in accordance with the requirements of a specific plant and also permits [illegible] between the entire plant [illegible]

SUB CODE: EC ENCL: [illegible]

Card 2/2

TKACH, V. K.

Tkach, V. K. - "A radiophysical method of examing heat reactions in plants", Uchen. zapiski Khar'k. gos. un-ta im. Gor'kogo, Vol. XXVII, Trudy Fiz. otd-niya Fiz. matem. fak., Vol. I, 1948, p. 109-19.

SO: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 8, 1949).

TKACH, V. K.

Tkach, V. K. - "The influence of a long magnetic pole on the distribution of electron speeds", Uchen. zapiski Khar'k. gos. un-ta im. Gor'kogo, Vol. XXVII, Trudy fiz. otd-niya Fiz.-matem. fak., Vol. I, 1948, p. 131-39, - Bibliog: 5 items.

SO: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 8, 1949).

TKACH, V.K., dotsent; CHERVOV, V.G., dotsent.

Changes in the dielectric properties of the blood in horses during thermal inactivation. Sbor.trud.Khar'.vet.inst. 21:135-143 '52.
(MLRA 9:12)

1. Kafedra radiofiziki Khar'kovskogo gosuniversiteta, Kafedra fiziki Khar'kovskago veterinarnogo instituta.
(Blood--Analysis and chemistry) (Dielectrics)
(Horses--Physiology)

TKACH, V.K.; SIDORENKO, V.S.

Distribution of luminescent ultraviolet rays in photarium. Gig. sanit., Moskva no. 1:26-27 Jan 1953. (CLML 24:2)

1. Of the Laboratory of Ultraviolet Radiation of the Ukrainian Institute of Labor Hygiene and Occupational Diseases.

TKACH, V.K.; PRIKHOZHIY, I.I.

Changes in the hydration of the blood of dogs under the effect of radiation energy. Biul.eksp.biol.i med. 37 no.1:44-47 Ja '54. (MLRA 7:3)

1. Iz laboratorii proizvodstvennogo mikroklimata (zaveduyushchiy - dotsent V.K.Tkach) Ukrainskogo tsentral'nogo instituta gigiyeny truda i profzabolevaniy, Khar'kov.

(Ultraviolet rays--Physiological effect)
(Infrared rays--Physiological effect) (Blood)

Translation M-238, 7 Mar 55

USSR/Human and Animal Physiology - Action of Physical Factors. T-13

Abs Jour : Ref Zhur - Biol., No 7, 1958, 32353

Author : Tkach, V.K., Prikhozhiy, I.I.

Inst : ---

Title : Peculiarities of the Kinetics of the Electric Properties of Blood During Action on the Organism by Ultraviolet, Infrared Rays and High-Frequency Fields.

Orig Pub : V sb.: Tr. nauchnoy sessii, posvyashchennoy dostizheniyam i zadacham sov. biofiziki v s. kh. M., Izd-vo AN SSSR, 1955, 245-256.

Abstract : A change of the capacity of a measuring condensator filled with a solution of 0.6 ml of blood in 10 ml of water was registered during cooling of the solution at 1° for 30-50 minutes. The average rate of the process for the blood of a dog in normal conditions kept relatively permanent (dispersion of data not over 10-12%). During exposure of animals to ultraviolet rays (PRK-2 lamps), the average

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USSR/Human and Animal Physiology - Action of Physical Factors. T-13

Abs Jour : Ref Zhur - Biol., No 7, 1958, 32353

rate of change of the capacity of the condensator during cooling of the solution increased sharply with small doses an hour after the effect. With large doses, the first break of the curve was directed to the side of the decrease of the rate of cooling off. Exposure to infrared rays caused a sharp increase of the rate, with a subsequent rapid rise to the norm. In the tests with the blood of dogs subjected to the action of a high-frequency field ($3 \cdot 10^7$ hertz), a sudden decrease of the rate was observed 50 minutes after the effect, its rise and time of return to the norm being proportional to the dose. By using numerous effects as conditioning stimuli, conditioned reflex changes of the indicator were obtained in a smaller proportion than were those which were caused directly by an effect.

Card 2/2

TKACH, V.K.

Outline of the development of radio physics at the Department of
Physics and Mathematics. Uch.zap.KHGU 60:93-102 '55. (MIRA 10:1)
(Kharkov University)
(Electronics)

USSR / General Problems of Pathology. Tumors. Metabolism. U-5

Abs Jour	: Ref Zhur - Biol., No 10, 1958, No 46868
Author	: Tkach, V. K.; Bazlov, Ye. A.
Inst	: Not given
Title	: The Connection Between the Cancer Patients' Condition and Certain Characteristics of Electric Properties of Blood Solutions.
Orig Pub	: V sb.: Vopros. luchevoy terapii, Kiev, Gosmedizdat, UkrSSR, 1956, 137-143.
Abstract	: Based on a number of considerations regarding the physical and chemical properties of hemolyzed blood solutions, the curves of changes in high-frequency electric conductivity of blood solutions during the process of cooling were determined. Such curves obtained from healthy persons differ from the curves of cancer patients. Also, differen- ces

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USSR / General Problems of Pathology. Tumors. Metabolism. U-5

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 46868

Abstract : were observed when these curves were obtained from patients whose condition was improving or from patients whose condition has been in the process of becoming worse.

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TKACH, V K.

V

109-9-15/15

AUTHOR: Stolyarov, L.G.

TITLE: A Science Conference dedicated to the "Radio Day" (Nauchnaya Sessiya, posvyashchennaya "Dnyu Radio")

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol. II, Nr 9, pp. 1221-1224 (USSR)

ABSTRACT: An All-Union Scientific Conference took place in Moscow during 20-25 May, 1957. The Conference was organized by the Scientific-Technical Society for Radio Engineering and Electrical Communications imeni A.S. Popov, All-Union Scientific Council for Radio Physics and Radio Engineering of the Soviet Academy of Sciences and the Ministries of Communications, Radio Equipment Industries, and Culture. The Conference was attended by scientific and engineering personnel from Moscow, Leningrad, Gor'kiy, Kiyev and other principal towns of the country and by representatives of various foreign countries; Bulgaria, Hungary, E. Germany, China, N.Korea, Poland, Czechoslovakia and members of the American Institute of Radio Engineers. The Conference was opened by V.I. Siforov, President of the Society and Corresponding Member of the AcSc USSR. The Plenary Session heard the following reports: A.D. Fortushenko, Member of the Ministry of Communications' Board, on "Ways of Technical Development of Electric Communication in the USSR"; Ye. A. Gaylish, Chief Engineer of the

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NII of the Ministry of the Radio Equipment Industry, on "Small Size Parts for General Application"' G.D. Glebov, Chief Engineer of the NII of the Ministry of the Radio Equipment Industry, on "Semiconductor Devices Produced by the Radio Equipment Industry, Prospects of Their Improvement and Expansion of Nomenclature"; Professor S.I. Kitayev on "Electric Telescopy"; Dotsent V.K. Tkach on "Application of Radio Methods for Study of Pathological Phenomena in an Organism." "Some results of putting into operation the radio and electron part of a 10,000,000,000 ev synchrophasotron" were submitted by A.L. Mints, Corresponding Member of the AcSc USSR. The Conference was divided into the following 12 sections: Information theory, antenna systems, semiconductor devices, receiving and transmitting installations, wire communications, television, electronics, radio measurements, radio broadcasting, electroacoustics and sound recording, general radio engineering and radio wave propagation, and technology of radio equipment production. Altogether over 200 reports were delivered. The Information Theory Section heard about 20 reports among which were the following: L.M. Fink on "Multiposition Systems of Frequency Radiotelegraphy"; N.L. Teplov on "Basic Correlations in Signal

A Science Conference dedicated to the "Radio Day" 109-9-15/15

Integration and Fluctuating Interference in the Radio Receiver Channel"; K.A. Meshkovskiy on "Problems of Noiseproofing of Communication Systems which Receive a Whole Signal"; R.R. Varshamov on "Structure and Evaluation of the Quantity of Coded Signals with Correction of Errors"; V.M. Shteyn on "Quantum Noise of Group Signal in Frequency Separation of Signals"; L.A. Khalfin on "Information Theory of Geophysical Methods of Investigation"; L.A. Khalfin on "Signal Theory"; B.A. Varshaver on "Theory of Carrying Capacity in Binary Transmission"; N.A. Zheleznov on "Principle of Discretization in Theory of Signals Based on New Stochastic Model". The Semiconductor Section heard the following reports: E.I. Adirovich and A.Ya.Gordonov on "Theory and Experimental Investigation of Coefficients of Emitter-Collector Transmission in Junction Transistors"; Yu. K. Barsukov on "Transitional Blocking Process in Junction-type Germanium Diodes DGTs"; A.I.Borisov on "Nonlinear Amplifier Distortions in Transistors"; A.A. Rizkin on "Regeneration and Neutralization of Stages in Transistors"; V.N. Kononov on "Application of Nonlinear Feedback to Eliminate Saturation of Junction Transistors in Pulse Circuits"; Ya. A. Fedotov on "Frequency Properties of Drift Triodes". The Radio Engineering Section heard 19 reports among which were the following: Ya. S. Itskhoki on "Minimum Volume of a Pulse Transformer"; O.N. Litvinenko on the use of heterogenous lines with continuously alternating parameters for pulse shaping; Yu. B. Sindler and A. S. Nemirovskiy on "Calculation of the Influence of Fading in Designing Radio Relay

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A Science Conference dedicated to the "Radio Day" 109-9-15/15

Communication Lines"; V.S. Troitskiy on "Theory of the Molecular Generator and Fluctuation of Its Oscillation"; N.N. Lunacharskiy on "Effect of EMF with Alternating Parameters on a Self-Oscillating System"; I.L.Bershteyn on "Phase Stabilization of the Frequency of Microwave Generators"; Yu. Ya. Yurov on "A New Microwave Band Balance Mixer". The Antenna Systems Section heard more than 15 reports. Among them were the following: V.I. Zimina on "Theory of Propagation of Electromagnetic Waves Along Tubes filled with Ionized Gas"; A.A. Pirogov on "Ballistic Antennas"; V.I. Talanov on "A Method Solving the Problem of Excitation of Surface Waves over an Impedance Surface"; P.R. Cherep on "Wave Guide Bend with Surface Wave"; N.P. Kerzhentseva on "Propagation of Electromagnetic Waves in Bent Wave Guides of Circular Cross Section"; A.A. Model' spoke on elements of an antenna-wave guide channel for multichannel radio relay lines; V.I. Krutikov on "Method of Broadband Balancing of the Antenna-Feeding Channel of Multichannel Radio Relay Lines"; M.E. Gertsenshteyn and A.M.Pokras on "Wave Guide Splitter with Variable Coupling"; A.L. Mikaelyan and A.K. Stolyarov on "Ferrite Valves Utilizing Ferromagnetic Resonance", and A.L. Mikaelyan and M.M. Koblov on "Application of Ferrites for Coaxial Valve Systems".

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Finally, the Electronics Section heard the following reports: S.I. Tetel'baum on "Inverse Wave Generators Without Delay-type Wave Guide Systems; Ye. N. Bazarov and M.Ye. Zhabotinskiy on "Frequency Conversion in a Reflex Klystron"; Yu. A. Katsman on "Parametric Phenomena in the Electronic Flux of a Transit Klystron"; S.M. Afanasov on "Electronic Retuning of Frequency of Cavity Resonators by the Reactive Diode Method"; I.F. Pes'yatskiy and D.N. Khorosh on "A Post-Acceleration System in Electron-Beam Tubes Permitting Retention of the Beam Deflection Sensivity in Large Deflections of the Feeding Voltage in the Second and First Anodes". The Radio Wave Propagation Section heard 8 reports among which were the following: A.V. Prosin on "The Maximum Permissible Frequency Band Which Can Be Transmitted in Long Range Tropospheric Ultrashort Wave Propagation"; K.M. Kosikov discussed the prospects of utilizing oblique and return reflections from great distances and around-the-world echo; N.M. Boyenkov on"Influence of Solar Eclipse on the Ionosphere on the Basis of Observations of 30 June 1954 and 25 February 1952"; A.A. Grigor'yeva on "Results of Vertical Radiation Measurement of the Coefficient of Absorbtion of Short Radio Waves in Ionosphere"; V.E. Kashprovskiy read a report on long-range direction finding of thunderstorms. Very short summaries of the above reports are given.

SUBMITTED: June 16, 1957
AVAILABLE: Library of Congress
Card 5/5

TKACH, V.K.; FRENKEL', L.A.

Studying the stability of protein structures by the method of nonstationary heat exchange of protein solutions in a high-frequency field. Biofizika 5 no.3:253-259 '60. (MIRA 13:7)

1. Khar'kovskiy gosudarstvennyy universitet, Institut meditsinskoy radiologii, Khar'kov.
(PROTEINS) (ELECTROCHEMISTRY)

TKACH, V.K.

Some characteristics of disorder in the structural stability of serum proteins in malignant neoplasms. Biofizika 5 no. 4:398-403 '60. (MIRA 13:12)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M. Gor'kogo.
(BLOOD PROTEINS) (CANCER)

20422

24.2110 (1153,1160,1164)

S/109/60/005/012/020/035
E192/E382

AUTHORS: Tkach, V.K., Stepin, L.D. and Kazanskiy, V.B.

TITLE: Resonator Method of Measuring the Permittivity and Loss Tangent of Liquid Dielectrics

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol. 5, No. 12, pp. 2009 - 2014

TEXT: The resonator method provides means of accurate measurement of the permittivity and losses in dielectrics at microwaves. However, the measured sample is usually in the form of a disc and the method cannot be easily employed for measuring the permittivity and losses in liquids. It is proposed, therefore, that the measured sample be cylindrical and situated in the centre of the resonator parallel to its axis. For the purpose of the derivation of the formulae for the measurement, it is assumed that the resonator contains waves of the type H_{01n}. The solution of the Maxwell equations for the region occupied by the dielectric $(0 < r < b$ where b is the radius of the sample) is given by

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S/109/60/005/012/020/035
E192/E382

Resonator Method of Measuring the Permittivity and Loss Tangent of Liquid Dielectrics

$$H_{z\text{д}} = -CJ_0(kr)\sin\beta z,$$
$$H_{r\text{д}} = \frac{j\beta}{k}CJ_1(kr)\cos\beta z,$$
$$E_{\varphi\text{д}} = \frac{j\omega}{ck}CJ_1(kr)\sin\beta z,$$

where:

$$k^2 = \frac{\omega^2}{c^2}\varepsilon - \beta^2 \qquad (1).$$

The fields in the region occupied by the air ($b < r < a$ where a is the internal radius of the resonator) are expressed by:

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S/109/60/005/012/020/035
E192/E382

Resonator Method of Measuring the Permittivity and Loss Tangent of Liquid Dielectrics

where:

$$k_o^2 = \frac{\omega^2}{c^2} - \beta^2 \qquad (2).$$

In these expressions, ω is the angular frequency,
c is the velocity of propagation,
$\beta = 2\pi/\lambda_{B\text{Д}}$ is the propagation constant,
$\lambda_{B\text{Д}}$ is the wavelength in the resonator.

The unknown k can be determined from the boundary condition at r = b and r = a . These conditions lead to the following expression:

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$$kb\frac{J_0(kb)}{J_1(kb)} = k_0b\frac{J_0(k_0b)}{J_1(k_0b)}\frac{1-\dfrac{J_1(k_0a)}{Y_1(k_0a)}\dfrac{Y_0(k_0b)}{J_0(k_0b)}}{1-\dfrac{J_1(k_0a)}{Y_1(k_0a)}\dfrac{Y_1(k_0b)}{J_1(k_0b)}}. \quad (3)$$

The quantity kb can be evaluated from Eq. (3). A special table is given for this purpose. The tangent of the loss angle tg δ is approximately expressed by:

$$\mathrm{tg}\,\delta = \frac{W_o}{W_{\Delta}}\left(\frac{1}{Q} - \frac{1}{Q_o}\right) \quad (7)$$

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Resonator Method of Measuring the Permittivity and Loss Tangent of Liquid Dielectrics

where W is the energy stored in the region $b < r < a$,
W_{A} is the energy stored in the region $0 < r < b$,
Q is the quality factor of the resonator with the sample,
Q_o is the quality factor of the resonator without the sample.

The final theoretical expression for the loss tangent is in the form:

$$\operatorname{tg}\delta = \frac{k^2}{k_0^2 \varepsilon} \frac{a^2}{b^2} \frac{J_0^2(kb)}{J_0^2(k_0 b)} \frac{F_1(k_0 a)}{F_1(kb)} \left[\frac{1}{Q} - \frac{1}{Q_0}\right]. \qquad (11)$$

The method proposed above was investigated experimentally. The resonator used in the experiments was made of brass and had an internal diameter $2a = 5.908$ cm and a length of

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Resonator Method of Measuring the Permittivity and Loss Tangent of Liquid Dielectrics

14.9 cm. The resonator operated in the H_{011} mode and its quality factor was 3790; the position of the plunger in the resonator could be varied by means of a micrometer screw and could be determined with an error of ± 0.002 mm. The resonant frequency of the system could be accurately measured by means of a cavity wavemeter. The permittivity and the loss tangent of the sample were based on the determination of the resonant wavelength and the magnitude of the quality factors of the resonator itself and the resonator with the sample. Some solid and liquid dielectrics were investigated (organic glass, ebonite, ethyl alcohol, benzole acetone and distilled water). The measured values are indicated in a table. From this it is seen that the results are in good agreement with the data available from literature. The method

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permits the measurement of permittivity with an average square error of not more than 3% and that of the loss tangent with an error of not more than 9%. There are 2 figures, 2 tables and 9 references: 8 Soviet and 1 non-Soviet.

SUBMITTED: January 16, 1960

Card 7/7

TKACH, V.K.

Letter to the editor. Vop. kur., fizioter. i lech. fiz. kul't. 26 no. 2:179 Mr-Ap '61. (MIRA 14:4)

1. Biofizicheskaya laboratoriya Khar'kovskoy oblastnoy bal'neolechebnitsy.
(ELECTROPHORESIS) (BLOOD)
(ULTRAVIOLET RAYS--PHYSIOLOGICAL EFFECT)

TKACH, V.K.

Some characteristics of the cooling processes in high-frequency electric fields of blood solutions from patients suffering from malignant neoplasms. Biofizika 9 no.2:210-216 '64. (MIRA 17:12)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo.

KAZANSKIY, V.B.; STEPIN, L.D.; TKACH, V.K.

Use of a new variant of the resonator method for measuring dielectric constants for the study of high molecular weight compounds. Biofizika 8 no.1:112-116 '63. (MIRA 17:8)

1. Khar'kovskiy gosudarstvennyy universitet imeni Gor'kogo.

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L 17566-63 EWT(1)/EWT(m)/BDS/ES(j) AMD/AFFTC/ASD AR/K

ACCESSION NR: AT3002357 S/2930/62/000/000/0005/0015

AUTHOR: Tkach, V. K. (Khar'kov)

56

TITLE: Certain characteristics of early disturbances in blood protein during radiation injury development based on study of heat emission of its solutions

14

SOURCE: K voprosam ranney diagnostiki ostroy luchevoy bolezni; sbornik nauchnykh rabot. Kiev, Medgiz USSR, 1962, 5-15

TOPIC TAGS: blood protein, heat coefficient , molecular structure, radiation damage

ABSTRACT: Heat coefficients of irradiated and normal blood serum solutions were compared to gain insight into the heat property changes resulting from protein molecular structure change. Blood serum (from rabbits or rats) solutions were prepared and heated in a vessel. The cooling temperature of the vessel was measured after 30 min and again after 1.5 hrs to determine heat coefficients K_1 and K_2. The other blood serum solutions were prepared from the blood of animals exposed to X-irradiation doses ranging from 200 to 1500 r. Coefficients K_1 and K_2 were determined (in the same manner as for

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D

normal blood solutions) and coefficient differences were plotted. Results show that the heat coefficients of normal blood solutions remain constant within the first 2÷3 hours and change little in later periods. But heat coefficients of irradiated blood serums change significantly. The relationship between heat transfer intensity and heat content of a solution undergoes regular changes depending on radiation dose and the time elapsed after irradiation. For some blood serums K_2 increases sharply in relation to K_1 and for others it decreases. The author explains the decrease in heat coefficient K_2 in relation to K_1 in an irradiated blood serum solution by the excitement that irradiation causes in certain protein molecular structures. But it is more difficult to account for the increase in heat coefficient K_2 in relation to K_1. Possible explanations include dissociation of the proteins into smaller ionized fractions, desorption of the ions from the protein particle surfaces, or the energy released during hydration of the free ions. Orig. art. has: 4 tables, 4 figures.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 28May63 ENCL: 00

SUB CODE: AM NO REF SOV: 005 OTHER: 001

Card 2/2

ACCESSION NR: AR3000178 S/0274/63/000/004/A073/A073

SOURCE: RZh. Radiotekhnika i elektrosvyaz', Abs. 4A465

AUTHOR: Sil'chenko, V. A.; Tkach, V. K.

TITLE: Utilization of paramagnetic electron resonance in the selection of high-sensitivity mode of operation of a unit for measuring dielectric losses by the method of grid currents

CITED SOURCE: Uch. zap. Khar'kovsk. un-t, Tr. Radiofiz. fak., v. 121, no. 5, 1962, 145-150

TOPIC TAGS: paramagnetic electron resonance; tuning; dielectric losses

TRANSLATION: Tuning of the unit by the method utilizing paramagnetic electron resonance absorption signal makes it possible to select the mode of operation of the generator which ensures maximum sensitivity of the unit when small variations of dielectric losses are measured. In

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ACCESSION NR: AR3000178

the opinion of the authors the proposed method is simpler than the method of determination of concentration dependencies of conduction. G. L.

DATE ACQ: 16May63 ENCL: 00 SUB CODE: 00

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S/058/63/000/003/098/104
A059/A101

AUTHORS: Sil'chenko, V. A., Tkach, V. K.

TITLE: Use of the electron paramagnetic resonance for the selection of extremely sensitive working conditions of a setup for the measurement of dielectric losses by the method of grid currents

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 41, abstract 3Zh243 ("Uch. zap. Khar'kovsk. un-t", 1962, v. 121, Tr. Radiofiz. fak., v. 5, 145 - 150)

TEXT: A device for the measurement of small variations of the dielectric losses at frequencies of about 25 Mc is described. The operation of the device is based on the dependence of the constant component of the generator grid current on the loading impedance in the grid circuit. The value of the equivalent loading impedance varies in the presence or in the case of variation of losses in the sample of the dielectric introduced into the coil of the generator circuit. Maximum sensitivity of the given measuring generator is reached at definite working conditions of the valve, and at a definite ratio between the

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parameters of the valve and those of the generator grid circuit. For the calibration of the apparatus and its adjustment to maximum sensitivity, the method of loss imitation at the expense of the signal of electron paramagnetic resonance losses in a rock-salt solution is used.

I. Ivanov

[Abstracter's note: Complete translation]

S/058/63/000/002/058/070
A160/A101

AUTHORS: Tkach, V. K., Petrenko, Yu. A.

TITLE: The change in the propagation velocity of supersonic oscillations in albumen solutions after the effect of ultraviolet radiation

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1963, 61, abstract 2Zh385 ("Uch. zap. Khar'kovsk. un-t", 1962, v. 121, Tr. Radiofiz. fak., 5, 155 - 158)

TEXT: An installation was developed for measuring the velocity of supersonic oscillations in polymer solutions by the light diffraction method on a supersonic grating with an error not exceeding 1.5 - 1.7%. Studied was the velocity change of the supersonic oscillations in the aqueous solutions of albumens (plasma albumin of human blood) subjected to the action of various doses of ultraviolet rays with a wavelength of Λ = 2,540 Å. Determined was the existence of the aftereffects of the ultraviolet rays, manifested in the gradual return of the velocity magnitude of supersonic oscillations to the values corresponding to the non-irradiated albumen.
[Abstracter's note: Complete translation]

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ARNAUTOV, A.K.; BURSHTEYN, Sh.A.; GENES, V.S.; KOGAN, I.K.; MAMATYUK, Ye.M.; LITVINENKO, A.S.; MOSKALENKO, I.P.; NIKOLAYEVA, M.G.; PISKAREVA, Ye.V.; POPOVA, L.Ya.; RUDNEV, L.I.; SIDYAKIN, V.V.; TKACH, V.K.; FASTYUCHENKO, O.V.; FISUN, A.N.; FRENKEL', L.A.; TSYBENKO, N.A.; SHRAMENKO, B.I.

Comparative study on the effect of X rays (197 kv) and braking radiation generated with linear accelerator (3 Mev) upon animals. Radiobiologiia 2 no.2:211-215 '62. (MIRA 15:4)

1. Khar'kovskiy institut meditsinskoy radiologii i Ukrainskoy fiziko-tekhnicheskiy institut AN USSR, Khar'kov.
(RADIATION--PHYSIOLOGICAL EFFECT)

ARNAUTOV, A. K.; BURSHTEYN, S. A.; GENES, V. S.; DZHAFAROV, G. K.; KOGAN, I. A.; MAMOTYUK, Ye. M.; NIKOLAYEVA, M. G.; PISKAREVA, Ye. V.; POPOVA, L. Y.; TKACH, V. K.; FASTYUCHENKO, O. V.; FRENKEL', L. A.; TSYBENKO, P. A.

Characteristics of some early reactions of rats, irradiated with various doses, to burning by flame. Radiobiologiia 2 no.3: 406-413 '62. (MIRA 15:7)

1. Institut meditsinskoy radiologii, Khar'kov.

(X RAYS--PHYSIOLOGICAL EFFECT)
(BURNS AND SCALDS)

TKACH, V.K.; FRENKEL', L.A.

Using the high-frequency electric conductivity method in studying sorption characteristics of irradiated proteins. Radiobiologiia 1 no.6:824-829 '61. (MIRA 15:2)

1. Khar'kovskiy gosudarstvennyy universitet imeni A.M.Gor'kogo i Institut meditsinskoy radiologii, Khar'kov.

(PROTEINS) (SORPTION)
(GAMMA RAYS--PHYSIOLOGICAL EFFECT)